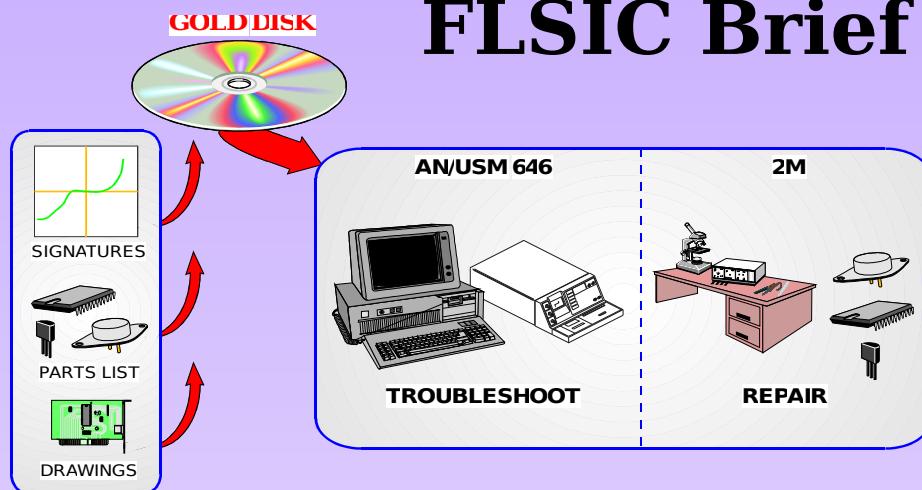




# Miniature/Microminiature Module Test & Repair (2M MTR) & Gold Disk Program

## FLSIC Brief (10/23/03)



Tom Ingram SEA04RP2  
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COM 202-781-3380  
IngramTW@NAVSEA.NAVY.  
MIL  
Building 107 4W1670

**2M MTR PROGRAM HOME**

**PAGES**

[Http://WWW.CRANE.NAVY.MIL/2M](http://WWW.CRANE.NAVY.MIL/2M)

[HTTPS://WWW.NOR.NUWC.NAVY.MIL/MTR](https://WWW.NOR.NUWC.NAVY.MIL/MTR)



# **SEA 04RP2**

## **Responsibilities**

### **2M MTR Equipment**

#### **Outfitting**

- 294 Surface Ships and Shore Commands
- 18 Submarines (TRIDENTS & 4 SSGN)
- 7 NETC Training Commands
- 10 FTSCs 2M MTR Inspector Sites
- New Equipment Evaluation/Selection
- 2M MTR Equipment & SW ILS
- 2M Piece Part APLs (41 Ship Class & 20 Shore)

#### **New Ship/ System PM, SYSCOM, FMS and other Services/USCG Interface**

#### **2M Repair Processes**

#### **2M MTR Certification/ Site Review Support**

#### **Test Procedure Development**



# NAVSEA 2M MTR Program Infrastructure

**CNO N43\***  
**2M MTR Resource Sponsor**

**NAVSEA 04RP2**  
**2M/MTR Program/ILS Manager**

**NSWC Crane**  
**Code 6083**

2M Equipment  
ISEA/TDA  
- 2M Certifying Agent  
- Piece Part Outfitting  
(SCN)

**FTSCLANT 4103**  
**FTSCPAC 203**  
**FTSCLANT/PAC DETs**

**2M**  
**Inspectors/FSE**

**NAVICP-M**  
**Mechanicsburg**  
**Code 058**

- 2M Piece Part Support
- 2M/MTR Equipment Support
- Gold Disk Candidate List Data
- CCA/EM Requisition Data
- BOSS Funds for Gold Disks

**Seven 2M/MTR  
Training Commands**

**NUWC DET FEO**  
**NORFOLK**  
**Code 201V**

MTR Equipment  
ISEA/TDA  
- Gold Disk  
Development Mgr

**GOLD DISK DEVELOPERS**  
Verification/Distribution  
- SPAWAR/SEA/AIR Field Act.  
- Navy IMAs and Training Cmds  
- Navy IMAs and Training Cmds  
- Naval/USMC Aviation IMAs  
- USCG (Surface/Aviation)  
- USMC (Ground)  
- USAF MAJCOMs  
- USA



# Benefits of 2M MTR Utilization

From 1 Oct. 1997 to 30 June 2003, Navy commands outfitted by

NAVSEA 04RP2 reported **57,414 2M repairs** completed which

resulted in **4,961 CASREPS averted/corrected** and **\$186M in OPTAR cost avoidance. Annual program investment was less than \$6M.**

Improves Readiness & Sustainability of systems/equipment

Results in reduced requirements for shipboard and shore spares.

Reduces tech assists from off ship/base tech reps.

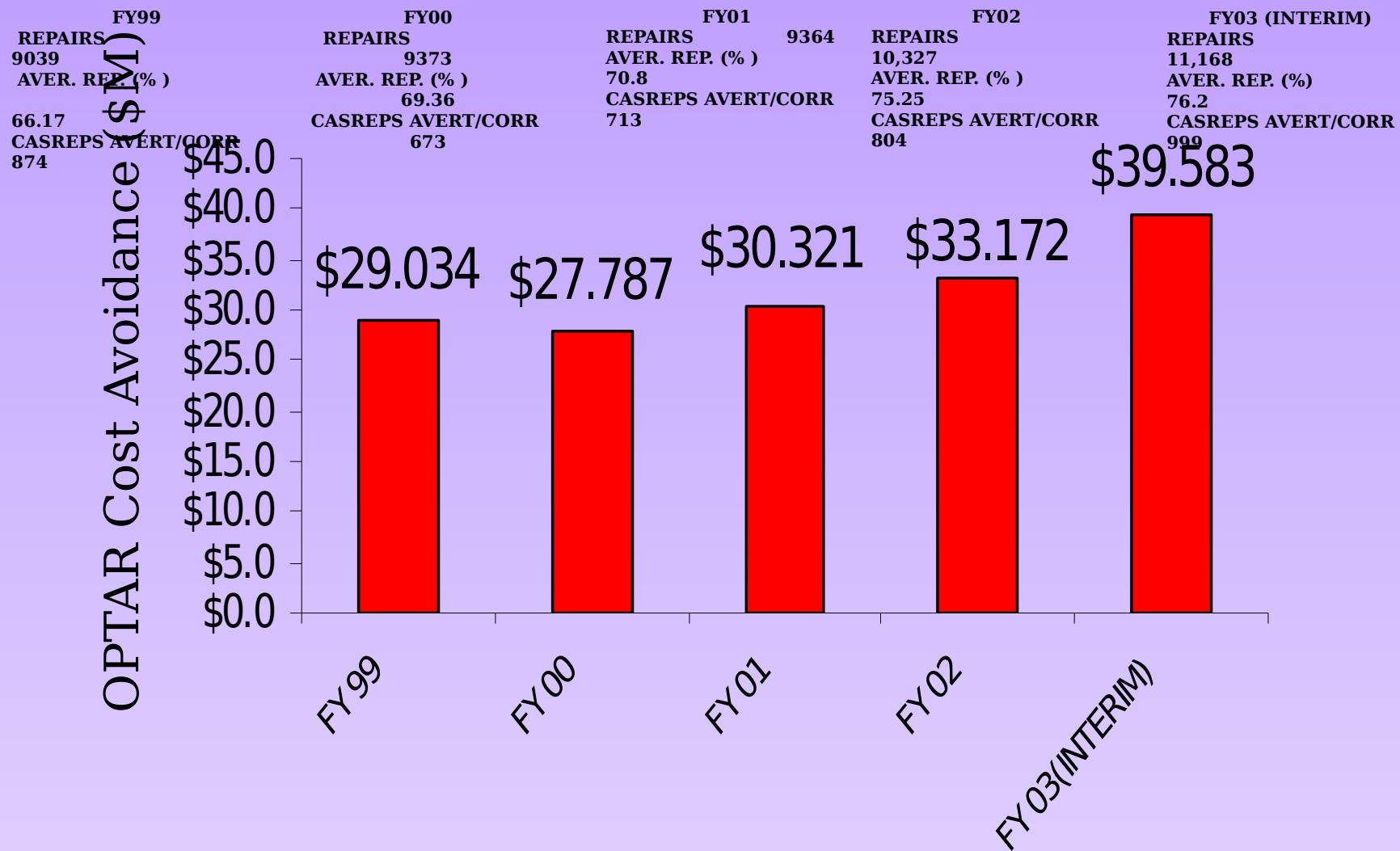
Promotes sailor “Quality of Service/Life” .

2M MTR Training used as reenlistment incentive.

Sailors eligible for Monthly CNO Gold Dick Award



# Module Test & Repair Tracking System Data



DATA DOES NOT INCLUDE ANY REPAIRS UTILIZING 2M/MTR EQUIPMENT COMPLETED AT NAVAL AND MARINE AVIATION OR MARINE GROUND MAINTENANCE ACTIVITIES.



# FLSIC Action Items

## Action Item 030306-0

SEA 04M32 provide 2M MTR Process flow to PEO SHIPS FL. Met with Tim Phillips and have agreed on approval process for new Gold Disks. ISEAs will assist with NEW Gold Disk review.

FFC N412 confer with FFC N43 regarding need to hold meeting with ALCON in order to better document policy and procedures regarding 2M MTR.

OPNAV Ships Maintenance Policy (OPNAV 4700.7K signed 13 July 2003 which contains 6 pages on 2M MTR policy and procedures.

IFMM (CLF/CPF INST 4790.3) contains a 18 page chapter on



# NAVICP-M 058

## 2M MTR Action Item

NUWCDET Norfolk will provide High Usage MTRTS M  
(CCAs/EMs repaired to components replaced)  
102 Repaired (5998-01-144-2593) AN/URT-23, 19 Recon  
High Failure Components - RSN Replaced: Q11 = 11, Q

J CN	MTRTS Record No	SYSTEM_NAME	COMPL_DATE	FINAL_ACT	CASREP	PPARTS RSN	NSN
211073156-016	2110700239	AN/URT-23 #2	05-Jun-03	7A	N	A9A1Q11	5961-01-179-3470
2110703156017	2110700240	AN/URT-23 #2	05-Jun-03	7A	N	A9A1Q15	5961-00-110-3569
2110703156017	2110700240	AN/URT-23 #2	05-Jun-03	7A	N	A9A1Q11	5961-01-179-3470
211073156-017	2110700241	AN/URT-23 #2	06-Jun-03	7A	N	A9A1Q11	5961-01-179-3470
211073156-018	2110700242	AN/URT-23 #2	05-Jun-03	7A	N	A9A1Q11	5961-01-179-3470
211073156-018	2110700242	AN/URT-23 #2	05-Jun-03	7A	N	A9A1Q14	5961-00-949-1440
21108CS079314	2110800120	URT23#4	30-Mar-03	1	N	1A1A9Q14	5961-01-187-8836
21109CS074224	2110900131	AN/URT23C(V)	07-Jan-03	7B	N	Q14	5961-01-187-8836
21109CS074227	2110900132	AN/URT-23C(V)	10-Jan-03	7B	N	Q14	5961-01-187-8836
21197CS074395	2119700065	AN/URT-23C	17-Feb-03	7E	N	Q14	5961-00-949-1440
20018CS073916	2110800119	URT-23 #1	30-Mar-03	2	N	1A1A9Q14	5961-01-187-8836
21530OE010304	2153000062	AN/URT-23	21-Jan-03	1	N	1A1A9A1Q11	NONE
21530OE010371	2153000089	AN/URT-23 C	15-Jun-03	1	N	1A1A9A1Q11	NONE
21530OE010370	2153000088	AN/URT-23 C	14-Jun-03	1	N	1A1A9A1Q11	NONE
21104CS074368	2110400160	AN/URT-23C	30-Mar-03	7B	N	1A1A9A1Q14	5961-00-880-4779
21530OE013269	2153000087	AN/URT-23 C	14-Jun-03	1	N	1A1A9A1Q11	NONE
21530OE010412	2153000082	URT-23C	12-May-03	2	N	1A1A9A1Q11	5961-01-187-8836
21530OE011221	2153000080	URT-23C	23-Apr-03	2	N	Q14	5961-01-187-8836
21530OE010372	2153000090	AN/URT-23C	17-Jun-03	1	N	1A1A9A1Q11	NONE
21530OE013200	2153000066	AN/URT-23	19-Feb-03	2	N	1A1A9A1Q14	NONE



# BACKUP SLIDES (9-19)



# MTR Test Equipment & 2M Repair Training

**Completion of all courses results in  
NEC 1591**

AN/USM-646  
A-100-0076  
5 days

Miniature  
Electronic Repair  
A-100-0072  
26 days  
NEC 9527

Microammeter  
Electronic  
Repair  
A-100-0073  
12 days  
NEC 9526

## Course Location

FTC Norfolk \*

FTC Mayport

FTC San Diego

NAMTRAGRUDET Whidbey  
Is.

ATG MIDPAC

ATG WESTPAC)

\*Course Curriculum Model  
Manager

## Instructor (9509) & Inspector (9503)

FTC Norfolk

FTC Mayport

FTC San Diego \*

NAMTRAGRUDET Whidbey  
Is.

ATG MIDPAC (Pearl  
Harbor)

NAMTRAGRUDET Atsugi,  
Japan

ATG WESTPAC

FTC Norfolk

FTC Mayport

FTC San Diego \*

NAMTRAGRUDET Whidbey  
Is.

ATG MIDPAC Pearl Harbor

NAMTRAGRUDET Atsugi,  
Japan

ATG WESTPAC

# Standard 2M Micro Configuration (PRC 2000-SMT)

Microscope, tools,  
ESD  
material and  
consumables  
not shown.



# Portable 2M REPAIR Kit

- Pace MBT-250
- Subset 2M AEL
- < 2 ft<sup>3</sup> storage case
- No microscope \*



# MTR Test Equipment Suite



**AN/USM-646**  
TEST STATION  
(Huntron 5100DS  
& Controller)

916 in use (5/1/02)  
460 NAVSEA cog

SHORTRACK 90  
SWITCHER 410  
HUNTRON 2000



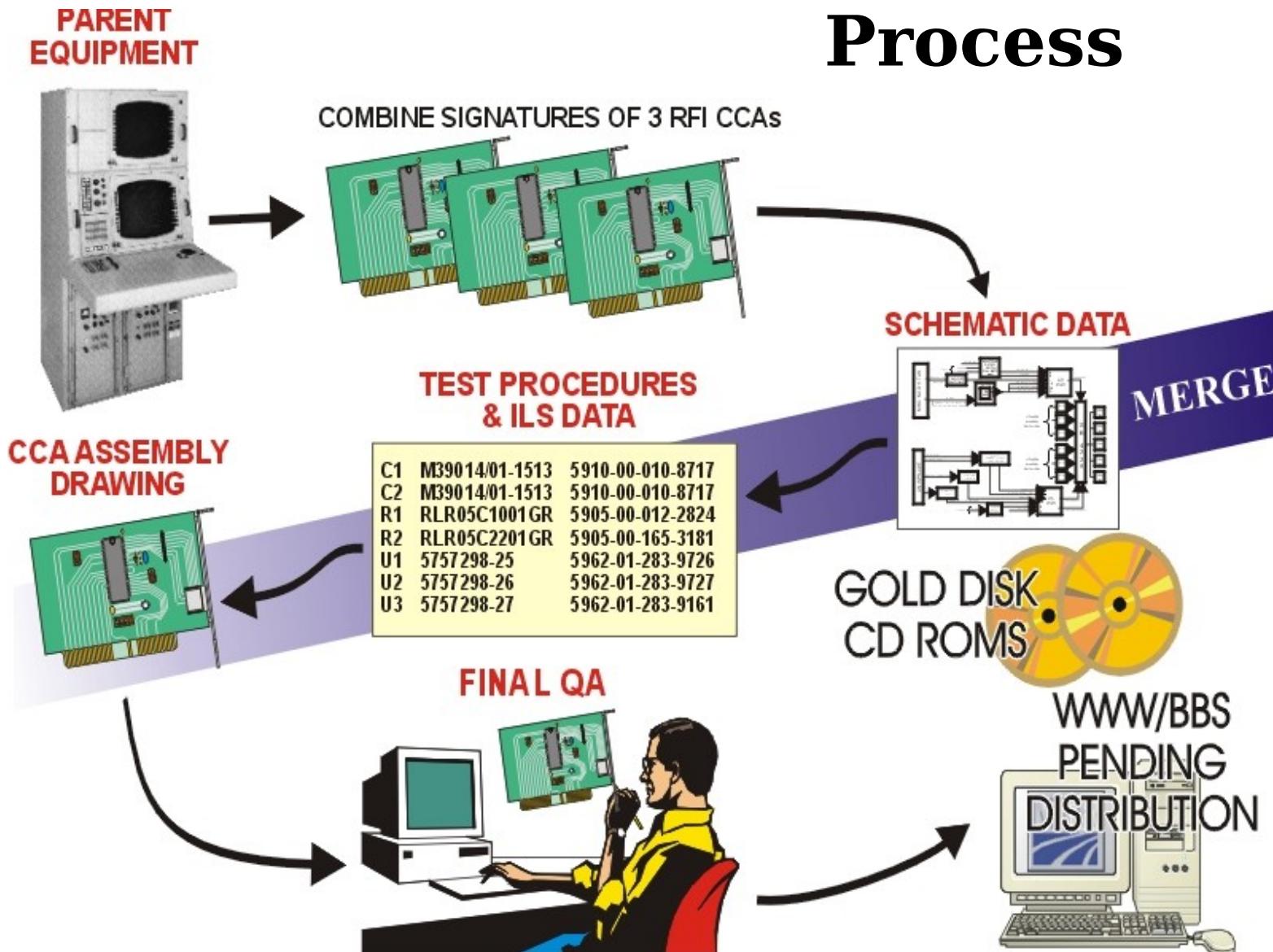


# PROTRACK Configuration AN/USM-674(V)1

## 357 Protracks deployed (9/30/03)



# Gold Disk Development Process





# Gold Disk Production





# Gold Disk Development Issue Paper

## LHA/LHD Technicians Develop Gold Disks during Availabilities

NAVSEA has a backlog of over 6,000 Gold Disk Candidates with ROI of 93% of Navy Gold Disk test procedures developed by civilians.

Funds available for less than 200 Gold Disks annually.

Sailors at TYCOM designated shore sites develop Gold Disks.

CV/CVN/LHA/LHD Sailors during Availabilities also develop Gold Disks.

Sailors assigned to New Construction ships PCUs also have developed Gold Disks.

**Benefits:** Techs become more proficient in troubleshooting circuit boards  
Significant OPTAR cost avoidance and improved Readiness  
Can reduce wholesale spares inventories.  
Can eliminate/ reduce duration of tech assists and I&R  
Sailors eligible for CNO Monthly Gold Disk Award (SAIL)



# Requirements for Successful Utilization of 2M MTR Capabilities

Command Attention and compliance with JFMM (CLF/CPF INST 4790.3), Volume IV, Part I, Chapter 11 including Quarterly MTRTS Reports.

Trained Personnel with NEC 1591 and Current Certification

Work center properly outfitted with 2M MTR HW/SW, tools, accessories and 2M piece parts

Effective coordination between Supply and Maintenance personnel to promote screening and repair attempts when feasible for all failed circuit cards and electronic modules

# PINPOINT II

## AN/USM-676, (IMA use)



# Pace TF 500 (New IMA 2M Convection Rework Station)

